

## ABSTRACT

A first threshold value (TH1) is determined in accordance with the intensity of background noise; threshold values (TH21), (TH22), (TH23) each are set in a fixed frequency area in the vicinity of the peak position in each base portion of peaks (P1), (P2), and (P3); the higher one in these threshold values is adopted as a decisive threshold value in each FFT bin; and a peak exceeding the threshold value is considered as a target peak and detected. Thus, the target peak caused by the reflected wave from a target included in the frequency spectrum of a beat signal is surely detected and detection accuracy of the target is increased.